



TITLE V OPERATING PERMIT

Permit No: **TV-OP-033**
Date Issued: **December 13, 2000**

This certifies that:

Concord Steam Corporation
105 ½ Pleasant Street
Concord, NH 03302-1377

has been granted a Title V Operating Permit for the following facility and location:

Concord Steam Corporation
105 ½ Pleasant Street
Concord, NH 03302-1377
AFS Point Source Number - 3301300032

This Title V Operating Permit is hereby issued under the terms and conditions specified in the Title V Operating Permit Application filed with the New Hampshire Department of Environmental Services on **July 1, 1996** with additional information submitted on **December 2, 1996**, under the signature of the following responsible official certifying to the best of their knowledge that the statements and information therein are true, accurate and complete.

Responsible Official:

Peter Bloomfield
President
(603) 224-1461

Technical Contact:

Mark Saltsman
General Manager
(603) 224-1461

This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C and in accordance with the provisions of Code of the Federal Regulations 40 Part 70.

This Title V Operating Permit shall expire on **December 13, 2005**.

SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS

For the New Hampshire Department of Environmental Services, Air Resources Division

Director, Air Resources Division

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ABBREVIATIONS

AAL	Ambient Air Limit
AP-42	Compilation of Air Pollutant Emission Factors
ARD	Air Resources Division
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BHP	Break Horse Power
BTU	British Thermal Units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CNG	Compressed Natural Gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
COMS	Continuous Opacity Monitoring System
DER	Discrete Emission Reduction
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
Env-Wm	New Hampshire Code of Administrative Rules – Waste Management Division
ECS	Emission Control System
ERC	Emission Reduction Credit
FR	Federal Register
HAP	Hazardous Air Pollutant
HCl	Hydrochloric acid
Hr	Hour
kGal	1,000 gallons
LAER	Lowest Achievable Emission Rate
Lb/hr	Pounds per hour
LNB	Low NO _x Burner
LNG	Liquid Natural Gas
LPG	Liquid Petroleum Gas (Propane)
MACT	Maximum Available Control Technology
mg/L	Milligrams per liter (ppm)
MMBTU	Million British Thermal Units
MMCF	Million Cubic Feet
NAAQS	National Ambient Air Quality Standard
NCCEM	Non-certified Continuous Emissions Monitoring System
NESAPS	National Emissions Standards for Hazardous Air Pollutants
NG	Natural Gas

ABBREVIATIONS (CONT.)

NHDES (or DES)	New Hampshire Department of Environmental Services
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PCB	Polychlorinated biphenyl
PE	Potential Emission
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns diameter
ppm	part per million
ppmv	part per million by volume
ppmdv	part per million by dry volume
PSD	Prevention of Significant Deterioration
PSI	Pounds per Square Inch
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RTAP	Regulated Air Toxic Pollutant
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
T-12M	Tons during any consecutive 12-month period
TAP	Toxic Air Pollutant
TSP	Total Suspended Particulate Matter
TPY	Tons per Year
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Facility Specific Title V Operating Permit Conditions

I. Facility Description of Operations:

Concord Steam Corporation (CSC) operates a steam generating facility on the grounds of the New Hampshire State Hospital in Concord, New Hampshire. CSC generates steam for sale to local businesses for use as building heat, to generate electricity via steam driven turbines for use in-house and put up for sale the excess electricity to the local utility. Each boiler exhausts to a common stack equipped with a continuous emissions monitoring system (CEMS) and a continuous opacity monitoring system (COMS). The primary source of air pollutant emissions at the facility, are generated from fuel-burning devices, which produce criteria pollutant and hazardous air pollutant (HAP) emissions.

II. Permitted Activities:

In accordance with all of the applicable requirements identified in the Permit, the Permittee is authorized to operate the devices and/or processes identified in Sections III, IV, V, and VI within the terms and conditions specified in this permit.

III. Significant Activities Identification:

A. Significant Activities:

The activities identified in Table 1 are subject to and regulated by this Title V Operating Permit.

Table 1 – Significant Activity Identification		
Emission Unit Number	Description of Emission Unit	Emissions Unit Maximum Permitted Capacity
EU01	Bigelow Boiler (Boiler #1)	Limited to a maximum gross heat input of 40.0-MMBTU/hr, while firing #6 fuel oil having a maximum sulfur content of 1.3% by weight, or #6 fuel oil/specification used oil ¹ mixture having a maximum sulfur content of 1.3% by weight.
EU02	Bigelow Boiler (Boiler #3)	Limited to a maximum gross heat input of 60.0-MMBTU/hr while firing #6 fuel oil having a maximum sulfur content of 1.3% by weight, or #6 fuel oil/specification used oil mixture having a maximum sulfur content of 1.3% by weight. Limited to a maximum gross heat input of 60.0 MMBTU/hr gross heat input while firing natural gas.

¹ Specification used oil shall be defined in accordance with Env-Wm 110.01(b) and shall meet the standards set forth in Env-Wm 807.02.

Table 1 – Significant Activity Identification

Emission Unit Number	Description of Emission Unit	Emissions Unit Maximum Permitted Capacity
EU03	Bigelow Boiler (Boiler #5)	<p>Limited to a maximum of 60.0-MMBTU/hr gross heat input while firing #6 fuel oil having a maximum sulfur content of 1.3% by weight, or #6 fuel oil/specification used oil mixture having a maximum sulfur content of 1.3% by weight.</p> <p>Limited to a maximum of 60.0-MMBTU/hr gross heat input while firing wood.</p> <p>Limited to a maximum of 65.0-MMBTU/hr gross heat input while co-firing #6 fuel oil having a maximum sulfur content of 1.3% by weight and wood, or #6 fuel oil/specification used oil mixture having a maximum sulfur content of 1.3% by weight and wood.</p>
EU04	Union HP Boiler (Boiler #6)	<p>Limited to a maximum of 75.0-MMBTU/hr gross heat input while firing #6 fuel oil having a maximum sulfur content of 1.3% by weight.</p> <p>Limited to a maximum of 65.0-MMBTU/hr gross heat input while firing wood.</p> <p>Limited to a maximum of 80.0-MMBTU/hr gross heat input while firing natural gas.</p> <p>Limited to a maximum of 80.0 MMBTU/hr gross heat input while co-firing #6 fuel oil having a maximum sulfur content of 1.3% by weight and wood.</p> <p>This fuel burning device shall fire only one of the following:</p> <ul style="list-style-type: none"> a) Wood; b) Natural gas; c) #6 fuel oil having a maximum sulfur content of 1.3%; or d) #6 fuel oil having a maximum sulfur content of 1.3%, and wood.
EU05	Cummings VT A1710GS2 Emergency Generator	<p>All emergency generators at a stationary source which:</p> <ul style="list-style-type: none"> a) Operate less than 500 hours, and b) The emissions of NO_x from all such generators are less than 25 tons during any consecutive 12-month period; <p>shall be exempt from the requirements of Env-A1211.02(i). The emergency generators shall be limited to 500 hours of operation per any consecutive 12-month period.</p>

B. Stack Criteria:

The significant devices indicated in Table 1 discharge through a common tapered masonry stack which rises 150 feet above ground level and has an inside exit diameter of 7.0 feet. This stack shall, discharge vertically without obstruction and meet criteria in accordance with the state-only modeling requirements specified in Env-A 1400 and the Federally Enforceable NAAQS.

Preauthorized changes to the state-only requirements² pertaining to stack parameters set forth in this permit, shall be permitted only when an air-quality impact analysis, which meets the criteria of Env-A 606 is performed either by the facility or the DES (if requested by the facility in writing) in accordance with the “DES Policy and Procedures for Air Quality Modeling”. All air modeling data shall be kept on file at the facility for review by the DES upon request.

IV. Insignificant Activities Identification:

All activities at this facility that meet the criteria identified in the New Hampshire Rules Governing the Control of Air Pollution Part Env-A 609.03(g), shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII of this Permit.

V. Exempt Activities Identification:

All activities identified in the New Hampshire Rules Governing the Control of Air Pollution Part Env-A 609.03(c), shall be considered exempt activities and shall not be included in the total facility emissions for the emission based fee calculation described in Section XXIII of this permit.

VI. Pollution Control Equipment/Technique Identification:

The devices identified in Table 2 below, are considered pollution control equipment for each identified activity.

Table 2 – Pollution Control Equipment Identification			
Pollution Control Equipment Number (PCE#)	Emission Unit Number	Description of Equipment	Activity
PCE#1	EU03	Zurn Cyclone Separator Model: MSTA-48-9CYT-XD-STD Installed: 1979 Tube Size: 9” inlet/6” outlet Number of tubes: 48 Fuel: Wood	Controls particulate matter emissions.
PCE#2	EU04	Zurn Cyclone Separator Model: MSTA-56-9CYT-XD-STD Installed: 1983/84 Tube Size: 9” inlet/6” outlet Number of tubes: 56 Fuel: Wood	Controls particulate matter emissions.
PCE#3	EU04	Barron Side Stream Cyclone Separator Model: 9K15-0402 Installed: 1994 Tube Size: 9” inlet/6” outlet Number of tubes: 8 Fuel: Wood	Controls particulate matter emissions.

² The term “state-only requirement” is used to refer to those requirements that are not federally enforceable but are state requirements as defined in Env-A 101.259.

All equipment, facilities and systems installed and used to achieve compliance with the terms and conditions of this Permit, shall at all times be maintained in good working order, and shall be operated as efficiently as possible so as to minimize air pollutant emissions and meet all applicable air pollution emissions limits. The controls listed shall be fully operational upon facility startup and shall not be bypassed during startup, operation, or shutdown of EU03 or EU04.

The pollution control equipment shall be maintained regularly, in accordance with the manufacturers recommended maintenance schedules and specifications. The Facility shall keep all maintenance records, on file for review upon request by DES and/or EPA.

VII. Alternative Operating Scenarios:

No alternative operating scenarios were identified for this permit.

VIII. Applicable Requirements:

A. State-only Enforceable Operational and Emission Limitations:

The Permittee shall be subject to the state-only operational and emission limitations identified in Table 3 below.

Table 3 – State-only Enforceable Operational and Emission Limitations			
Item #	Applicable Requirements	Applicable Emission Unit	Regulatory Cite
1.	New or modified devices, new or modified area sources for which new applications for permits are filed that have the potential to emit, in any amount, substances that meet the criteria of Env-A 1301 shall be subject to Env-A 1300, until such time as the Env-A 1400 requirements supersede the Env-A 1300 requirements. (As outlined below.)	Facility Wide	Env-A 1305.01(a)
2.	Air quality impact analysis of devices and area sources emitting substances meeting the criteria of Env-A 1300, shall be performed in accordance with the “DES Policy and Procedures for Air Quality Impact Modeling” or other comparable dispersion modeling methods approved by EPA.	Facility Wide	Env-A 1305.02
3.	In accordance with Env-A 1403.01, new or modified devices or processes installed after May 8, 1998, shall be subject to the requirements of Env-A 1400	Facility Wide	Env-A 1403.01.
4.	In accordance with 1403.02(a), all existing unmodified devices or processes, which are in operation during the transition period ending three years from May 8, 1998 (May 8, 2001), shall comply with either Env-A 1300 or Env-A 1400.	Facility Wide	Env-A 1403.02(a)
5.	In accordance with Env-A 1403.02(b), all existing devices or processes in operation after the transition period ending three years from May 8, 1998 (May 8, 2001), shall comply with Env-A 1400. Env-A 1300 will no longer be in effect.	Facility Wide	Env-A 1403.02(b)
6.	In accordance with Env-A 1404.01(d), documentation for the demonstration of compliance shall be retained at the facility, and shall be made available to the DES for inspection.	Facility Wide	Env-A 1404.01(d)

Table 3 – State-only Enforceable Operational and Emission Limitations

Item #	Applicable Requirements	Applicable Emission Unit	Regulatory Cite
7.	The owner of an existing device or process requiring a permit under chapter Env-A 1400, shall submit to the DES no later than one year prior to the end of the transition period (May 8, 2000), an application for modification to a title V permit in accordance with Env-A 609.18. A request to the DES to perform air dispersion modeling shall also be submitted at that time.	Facility Wide	Env-A 1405.02
8.	The owner of an existing device or process requiring a permit under Env-A 1300, shall submit to the DES no later than one year prior to the end of the transition period (May 8, 2000), a compliance plan identifying how the device or process will comply with chapter Env-A 1400 by the end of the transition period. The compliance plan shall contain the dates when the information required in Env-A 1405.02 will be filed with the DES.	Facility Wide	Env-A 1405.03
9.	In accordance with Env-A 1406.01, the owner of any device or process, which emits a regulated toxic pollutant, shall determine compliance with the ambient air limits by using one of the methods provided in Env-A 1406.02, Env-A 1406.03, or Env-A 1406.04. Upon request, the owner of any device or process, which emits a regulated toxic air pollutant, shall provide documentation of compliance with the ambient air limits to the DES.	Facility Wide	Env-A 1406.01

Table 3 – State-only Enforceable Operational and Emission Limitations

Item #	Applicable Requirements	Applicable Emission Unit	Regulatory Cite																												
10.	<p>The owner or operator is permitted to burn specification used oil under the following conditions:</p> <p>a) The specification used oil shall have a maximum sulfur content of 1.3% by weight³ and have the following allowable limits of contaminants:</p> <table><tr><td>Arsenic</td><td>5.0 mg/l* maximum</td></tr><tr><td>Cadmium</td><td>2.0 mg/l* maximum</td></tr><tr><td>Chromium</td><td>10 mg/l* maximum</td></tr><tr><td>Lead</td><td>100 mg/l* maximum</td></tr><tr><td>Halogens as HCl</td><td>1000 mg/l* maximum</td></tr><tr><td>PCBs</td><td>Less than 2 mg/l*</td></tr><tr><td>Flash Point</td><td>100 °F minimum</td></tr></table> <p>b) The used oil shall not otherwise exhibit any hazardous waste characteristics specified in Env-Wm 403. The used oil shall not be mixed with hazardous waste.</p> <p>c) If any contaminant exceeds the maximum allowable limit listed above, the used oil does not meet the definition of specification used oil and can not be accepted or burned as fuel.</p> <p>d) The facility may blend incoming shipments of specification used oil, as defined in a) above, with fuel oil contained in the on-site storage tank. After blending, the fuel oil mix in the storage tank shall not exceed the following levels of contaminants:</p> <table><tr><td>Arsenic</td><td>3.5 mg/l* maximum</td></tr><tr><td>Cadmium</td><td>2.0 mg/l* maximum</td></tr><tr><td>Chromium</td><td>3.5 mg/l* maximum</td></tr><tr><td>Lead</td><td>19 mg/l* maximum</td></tr><tr><td>Halogens as HCl</td><td>1000 mg/l* amximum</td></tr><tr><td>PCBs</td><td>Less than 2 mg/l*</td></tr><tr><td>Flash point</td><td>100°F minimum</td></tr></table> <p>* - dry weight basis</p>	Arsenic	5.0 mg/l* maximum	Cadmium	2.0 mg/l* maximum	Chromium	10 mg/l* maximum	Lead	100 mg/l* maximum	Halogens as HCl	1000 mg/l* maximum	PCBs	Less than 2 mg/l*	Flash Point	100 °F minimum	Arsenic	3.5 mg/l* maximum	Cadmium	2.0 mg/l* maximum	Chromium	3.5 mg/l* maximum	Lead	19 mg/l* maximum	Halogens as HCl	1000 mg/l* amximum	PCBs	Less than 2 mg/l*	Flash point	100°F minimum	EU01, EU02 & EU03	Env-A 1406.01
Arsenic	5.0 mg/l* maximum																														
Cadmium	2.0 mg/l* maximum																														
Chromium	10 mg/l* maximum																														
Lead	100 mg/l* maximum																														
Halogens as HCl	1000 mg/l* maximum																														
PCBs	Less than 2 mg/l*																														
Flash Point	100 °F minimum																														
Arsenic	3.5 mg/l* maximum																														
Cadmium	2.0 mg/l* maximum																														
Chromium	3.5 mg/l* maximum																														
Lead	19 mg/l* maximum																														
Halogens as HCl	1000 mg/l* amximum																														
PCBs	Less than 2 mg/l*																														
Flash point	100°F minimum																														

³ The facility may make adjustments to parameters that affect the air dispersion modeling analysis conducted by DES on August 23, 2000 in order to demonstrate that an alternative mixture limit can be established which would demonstrate compliance with the 24-hour and annual AALs for arsenic, cadmium, chromium, lead, HCl and PCBs. Any adjustments to parameters which affect the air dispersion modeling analysis, conducted by DES on August 23, 2000 and which result in new-modeled impacts shall be reported to DES. DES shall then notify the facility in writing of any revised emission limitation as a result of such adjustments. Such written notification shall be attached to this Title V Operating Permit as an addendum. The revised emission limit shall be incorporated into this Permit upon re-issuance.

B. Federally Enforceable Operational and Emission Limitations

The Permittee shall be subject to the Federally enforceable operational and emission limitations identified in Table 4 below:

Table 4 – Federally Enforceable Operational and Emission Limitations			
Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
1.	The Facility shall comply with the National Ambient Air Quality Standards (NAAQS) and the applicable requirements of RSA 125-C:6, RSA C:11 and Env-A 606.04. These sections include, but are not limited to, descriptions of the powers and duties of the commissioner, and requirements for adherence to permit application procedures and air pollution dispersion modeling impact analyses.	Facility Wide	RSA 125-C:6, RSA 125-C:11 & Env-A 606.04
2.	The combined heat input rate at all devices operating at this facility shall at all times be limited to less than 250 MMBTU/Hr.	Facility Wide	Facility Permit No. FP-S-0111
3.	The sulfur content of No. 2 oil and off road diesel fuel oil shall not exceed 0.40 percent sulfur by weight.	Facility Wide	Env-A 1604.01(a)
4.	The sulfur content of No. 6 fuel oil shall not exceed 1.3 percent sulfur by weight.	Facility Wide	Env-A 1604.01(c)(2)
5.	The sulfur content of the specification used oil shall not exceed 1.3 percent sulfur by weight.	Facility Wide	Env-A 1604.01(c)(2)
6.	Gaseous fuel shall contain no more than 5 grains of sulfur per 100 cubic feet of gas, calculated as hydrogen sulfide at standard temperature and pressure.	Facility Wide	40 CFR 52 ⁴
7.	The maximum usage of #6 fuel oil, #6 fuel oil/specification used oil ¹ mixture, or any combination thereof shall be limited to 2,421,300 gallons during any consecutive 12-month period. This fuel consumption may be adjusted such that the gallons of fuel consumed may be increased proportionately to the average sulfur content of fuel burned. The SO ₂ emissions from the facility may not exceed 249 tons during any consecutive 12-month period.	Facility Wide	Facility Permit No. FP-S-0111
8.	No owner or operator shall cause or allow average opacity from fuel burning devices in excess of 20 percent for any continuous 6-minute period in any 60-minute period except during periods of startup, shutdown and malfunction, average opacity shall be allowed to be in excess of 20 percent for one period of 6 continuous minutes in any 60 minute period.	Facility Wide	Env-A 2003.02 & Facility Permit No. FP-S-0111
9.	No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices in excess of 0.24 pounds per million BTU heat input.	Facility Wide	40 CFR 51

⁴ Env-A 402.03, effective December 27, 1990, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992 and is still considered federally enforceable until such time as the SIP is amended and approved by EPA.

Table 4 – Federally Enforceable Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
10.	The Permittee has accepted a Permit restriction limiting the facility wide NO _x emissions to less than 28.3 pounds per hour for any consecutive 365-day period. This emission rate shall be calculated daily as the average of the calendar day averages as calculated on the plant non-certified continuous emissions monitoring system (NCCEM) for the boilers. The calculation shall be performed using Formulas #1, #2, and #3 below.	Facility Wide	Env-A 1211.02(n)
11.	<p>The Permittee shall limit the NO_x emissions from:</p> <p>a) EU02:</p> <ol style="list-style-type: none"> 1) When firing #6 fuel oil or #6 fuel oil/specification used oil mixture, limited to 0.3 lb/MMBTU heat input or install, operate, and maintain Low NO_x Burners (LNB)⁵; 2) When firing natural gas, limited to 0.1 lb/MMBTU heat input or install, operate and maintain LNBs⁵; and 3) When firing natural gas/#6 fuel oil or natural gas/#6 fuel oil/specification used oil mixture, limited to 0.25 lb/MMBTU heat input or install, operate, and maintain LNBs⁵. <p>b) EU03:</p> <ol style="list-style-type: none"> 1) When firing #6 fuel oil or #6 fuel oil/specification used oil mixture, limited to 0.3 lb/MMBTU heat input or install, operate, and maintain LNBs; and 2) When firing wood, wood/#6 fuel oil, or wood/#6 fuel oil-specification used oil mixture, limited to 0.25 lb/MMBTU heat input. <p>c) EU04:</p> <ol style="list-style-type: none"> 1) When firing #6 fuel oil, limited to 0.3 lb/MMBTU heat input; or install, operate, and maintain LNBs⁶; 2) When firing natural gas/#6 fuel oil combination, limited to 0.3 lb/MMBTU heat input; or install, operate, and maintain LNBs⁶; 3) When firing wood or wood/#6 fuel oil combination, limited to 0.25 lb/MMBTU heat input; and 4) When firing natural gas, limited to 0.1-lb/MMBTU heat input or install, operate, and maintain LNBs⁶. 	EU02, EU03 & EU04	Env-A 1211.05(c)
12.	The Permittee has accepted a Permit restriction limiting the carbon monoxide (CO) emissions from the facility to less than 125 lb/hr for each calendar day average as calculated on the NCCEM. Calculations shall be performed using Formula #1 below.	Facility Wide	40 CFR 51 & Facility Permit No. FP-S-0111
13.	The carbon monoxide (CO) emission rate for EU01, EU02, EU03, EU04, and EU05 combined shall be limited to 57.0 lb/hr for any consecutive 365-day period. The emission rate shall be calculated daily as the average of the calendar day averages as calculated on the plant NCCEMS for the boilers. Calculations shall be performed using Formulas #1, 2, and 3 below.	EU01, EU02, EU03, EU04, EU05	40 CFR 51 & Facility Permit No. FP-S-0111

⁵ Two LNBs as defined by DES, were installed on EU02. The first LNB was installed in 1997, and the second LNB was installed in 1998.

⁶ Two LNBs as defined by DES, were installed on EU04. The first LNB was installed in 1993, and the second LNB was installed in 1996.

Table 4 – Federally Enforceable Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
14.	<p>Accidental Release Program Requirements.</p> <p>Storage of regulated chemicals at the facility, are less than the applicable threshold quantities established in 40 CFR 68.130. Administrative controls will be established in order to ensure that inventories of regulated substances are maintained below the specified threshold quantities. The facility is subject to the Purpose and General Duty clause of the 1990 Clean Air Act, Section 112(r)(1). General Duty includes the following responsibilities:</p> <ul style="list-style-type: none"> a) Identify potential hazards which result from such releases using appropriate hazard assessment techniques; b) Design and maintain a safe facility; c) Take steps necessary to prevent releases; and d) Minimize the consequences of accidental releases, which do occur. <p>If, in the future, the facility wishes to store quantities of high risk regulated substances above the threshold levels, an emergency response plan shall be submitted to the DES prior to exceeding threshold quantity limits. This plan shall include the information listed in 40 CFR 68, Subpart E.</p>	Facility Wide	40 CFR 68 Federally Enforceable

The Permittee shall use the following formulas, calculated on a rolling 365-day basis to verify compliance with the CO and NO_x emissions limitations specified in Table 4 of this Permit:

Formula #1: NCCEM Calendar Day Average Emissions

$$CDA = [(BO)]/[24 - HDT]$$

Where:

- CDA= Facility wide calendar day emission average⁷ for CO or NO_x;
BO = Sum of all valid hour⁸ lbs CO/hr or lbs NO_x/hr averages for the calendar day for EU01, EU02, EU03, EU04 and EU05; and
HDT = Hours of NCCEM downtime⁹ for the calendar day.

Formula #2: Sum of Valid Calendar Day Emissions

$$SCDA = \sum_{i=1}^N x_i + x_{i+1} \dots + x_{i=N}$$

Where:

- SCDA= Sum of all valid calendar day averages for CO or NO_x from Formula #1;
i= An integer from 1 to N;
N= Total number of valid data points to be summed; and

⁷ Calendar day averages shall only be valid for days with 18 or more valid hours of NCCEM data.

⁸ A valid hour of NCCEM data shall be defined as a minimum of 45 minutes collection of NCCEM readings taken in a consecutive 60-minute period.

⁹ Hours of NCCEM downtime shall be defined as the number of calendar hours when the NCCEM has not collected data or was out-of-control for greater than 18 minutes for any reason (i.e. audits, NCCEM calibration, NCCEM system failures, etc.), and does not include hours or days when the NCCEM has been intentionally shutdown when the facility is not operating.

X= A valid data point for CO or NO_x.

Formula #3: Facility Wide consecutive 365-day Average Emissions

$$CYA = [SCDA \div (365 - TDT)]$$

Where:

CYA= Actual facility wide consecutive 365-day average CO or NO_x emissions;
 SCDA= Sum of all valid calendar day average CO or NO_x emissions using Formula #2; and
 TDT= Total days of NCCEM downtime¹⁰ in 365-consecutive days.

C. Emission Reductions Trading Requirements

The Permittee did not request emissions reductions trading in its operating permit application. At this point, DES has not included any permit terms authorizing emissions trading in this permit. All emission reduction trading, must be authorized under the applicable requirements of either Env-A 3000 (the “Emissions Reductions Credits [ERCs] Trading Program”), or Env-A 3000 (the “Discrete Emissions Reductions [DERs] Trading Program) and 42 U.S.C § 7401 et seq. (The “Act”), and must be provided for in this permit.

D. Monitoring and Testing Requirements:

The Permittee is subject to the monitoring and testing requirements as contained in Table 5 below:

Table 5 – Monitoring/Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
1.	Allows for adequate dispersion of HAPs and other regulated pollutants	The Permittee shall conduct annual visual inspections of each stack and fuel-burning device. Annual inspections shall include a thorough inspection of the condition of each stack exterior and each fuel burning device, and be focused on identifying holes, leaks, deposits, deficiencies, or deterioration of equipment and stacks. Every five (5) years, the Permittee shall inspect the interior of each stack for evidence of corrosion, cracks, or holes. Records of inspections, and subsequent maintenance, conducted as a result of the annual inspections, shall be kept on file at the facility and will be made available for review by DES and/or EPA upon request.	Annually	Facility stacks and fuel burning devices	Env-A 806.01(4) & 40 CFR 70.6(a)(3) Federally Enforceable

¹⁰ Days of NCCEM downtime shall be defined as the number of calendar days when the NCCEM has not collected data or was out-of control for any reason (i.e. audits, NCCEM calibration, NCCEM system failures, etc.), and does not include hours or days when the NCCEM has been intentionally shutdown when the facility is not operating.

Table 5 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
2.	Sulfur content of liquid fuels	The operator shall conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets which certify the weight percent of sulfur for each delivery of fuel oil to determine compliance with the sulfur content limitation provisions specified in this permit for liquid fuels in order to meet the reporting requirements specified in Env-A 900.	For each delivery of fuel oil to the facility	Facility Wide	Env-A 809.01 Federally Enforceable
3.	Sulfur content of gaseous fuels	The Permittee shall conduct testing to determine compliance with the sulfur content limitation provision in Env-A 1600 for gaseous fuels in accordance with appropriate ASTM test methods or retain supplier certificates which substantiate the weight percent of sulfur of gaseous fuel in order to meet the reporting requirements specified in Env-A 900.	Upon written request by EPA or DES	Facility Wide	Env-A 1610.01 Federally Enforceable
4	HAPs content of liquid fuels	The operator shall conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets which certify the amounts of allowable contaminants for each delivery of specification waste oil to determine compliance with the used oil specification limitation provisions specified in this permit in order to meet the reporting requirements specified in Env-A 900.	For each delivery of specification used oil to the facility	Facility Wide	Env-A 809.01 & Env-Wm 807.10(b)(5) State-only Enforceable
5.	Particulate Matter	The pollution control equipment (cyclones) shall be maintained regularly, and in accordance with the manufacturers recommended maintenance schedules and specifications. The Facility shall keep all maintenance and repair records, on file for review upon request by DES and/or EPA.	As required by the manufacturer	EU03 & EU04	40 CFR 70.6(a)(3) & Env-A 806.01(4) Federally Enforceable

Table 5 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
6.	Continuous Emission Monitoring	<p>The Permittee shall maintain and operate a CEMS in the common stack for NO_x, CO, CO₂, and volumetric flow meeting all the requirements of 40 CFR Part 60, Appendix B, Appendix F, and Env-A 805 except for the audit requirements specified below:</p> <ul style="list-style-type: none"> a) Quarterly gaseous monitoring audits (i.e. cylinder gas audits, and relative accuracy audits); b) Quarterly volumetric flow monitoring audits (i.e. quarterly relative accuracy audits); c) Annual gaseous monitoring audits (i.e. relative accuracy test audit [RATA]); and d) Annual volumetric flow monitoring audits (i.e. relative accuracy test audits). <p>The requirements for this NCCEM system shall include all those items as applicable and as specified in this section.</p>	Continuous	NCCEM System	Env-A 805, 40 CFR 60, & 40 CFR 51 Federally Enforceable
7.	Continuous Emissions Monitoring	<p>The Permittee shall certify, operate, and maintain the CEM system in accordance with all applicable requirements of 40 CFR Part 60 Appendix B, Appendix F, and Env-A 805 within 60-days of any of the following events:</p> <ul style="list-style-type: none"> a) The 365-day rolling average¹¹ for NO_x exceeds 21.0 lb/hour (80% of the standard) for any calendar day; b) The 365-day rolling average¹¹ for CO exceeds 45.6 lb/hour (80% of the standard) for any calendar day; or c) When required by NHDES-ARD when justification exists for such operation of a certified CEM system. 	As required by this Permit	NCCEM System	Env-A 805 & RSA 125-C Federally Enforceable
8.	Continuous Emissions Monitoring	<p>When required by NHDES-ARD, the Permittee shall certify, operate, and maintain the CEM system in accordance with all applicable requirements of 40 CFR Part 60 Appendix B, Appendix F, and Env-A 805 within 60-days of the following event:</p> <ul style="list-style-type: none"> a) The 24-hour average¹¹ for CO exceeds 100 lb/hour (80% of the standard) for any calendar day. 	As required by this Permit	NCCEM System	Env-A 805 & RSA 125-C Federally Enforceable

¹¹ The 365-day rolling and 24-hour averages for CO and NO_x shall be calculated as specified in Section VIII.B, Formulas #1, #2 and #3.

Table 5 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
9.	Volumetric Flow Monitoring	<p>The Permittee shall operate and maintain a volumetric flow-measuring device. The stack flow measuring device shall conform to the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 and shall also meet the following:</p> <ul style="list-style-type: none"> a) The differential pressure flow monitors installed shall be an automatic blowback purge system and shall have the capacity for drainage of the sensing lines; and b) The stack flow monitoring system shall have the capability for on-line manual transducer calibration and for a zero check. 	Continuous	NCCEM System	40 CFR Part 60 Appendix B, & Env-A 805.03(h) Federally Enforceable
10.	Volumetric Flow Monitoring	The Permittee shall execute daily calibrations on the volumetric flow monitor (single pitot type) for zero and span.	Daily	NCCEM System	Env-A 805 & 40 CFR 51 Federally Enforceable
11.	Volumetric Flow Monitoring	The Permittee shall maintain the automatic blowback cycle on the stack flow monitor to keep the pitot tube unit clear and shall remove the stack flow monitor annually for inspection and cleaning. Frequency of removing the pitot tube shall be increased if the unit is shown to be plugged.	Annually or more frequently as needed	NCCEM System	Env-A 805.03 & 40 CFR 51 Federally Enforceable
12.	Continuous Emissions Monitoring	The stack volumetric flow measuring device combined with the concentration NCCEM equipment for CO and NO _x shall be used to calculate mass emission rates for comparison with the emission standards specified in Table 4.	Continuous	NCCEM System	40 CFR 51 Federally Enforceable
13.	Continuous Opacity Monitoring	The Permittee shall maintain and operate a continuous opacity monitoring system (COMS) which shall meet all the requirements of 40 CFR Part 60, Paragraph 60.13; Appendix B, Performance Specification 1 and Env-A 805.	Continuous	COMS System	40 CFR Part 60 Appendix B, & Env-A 805 Federally Enforceable
14.	Continuous Emissions Monitoring	<p>The Permittee shall:</p> <ul style="list-style-type: none"> a) Maintain the Quality Control program on the NCCEM system as specified in the plan submitted May 2, 1994 or any revision to the plan submitted thereafter minus the quarterly audits described in the “Quarterly QC” section of the plan; b) To the best of its ability, maintain the accuracy and integrity of the NCCEM system through maintenance and periodic quality checks; and c) The Permittee shall continue to review, update, submit, and implement as applicable, revised QC plans annually. 	Continuous	NCCEM and COMS system	Env-A 805 Federally Enforceable

Table 5 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
15.	Continuous Emissions Monitoring	The Permittee shall continuously monitor the data from the NCCEM/CEM system during all periods of startup, shutdown, malfunctions, and emergency conditions.	Continuous	NCCEM and COMS System	Env-A 805 & 40 CFR 70.6 Federally Enforceable
16.	Periodic Monitoring	All fuel-flow metering/recording devices shall be calibrated in accordance with the manufacturers specifications.	As required by the manufacturer	EU01, EU02, EU03 & EU04	40 CFR 70.6 (a)(3)(i)(B) & Env-A 806 Federally Enforceable
17.	Periodic Monitoring	Fuel usage will be monitored for each emissions unit along with daily hours of operation.	Daily	EU01, EU02, EU03, EU04 & EU05	40 CFR 70.6 (a)(3)(i)(B) & Env-A 806 Federally Enforceable
18.	Continuous Emissions Monitoring	In all cases when the NCCEM system requires re-certification, the Permittee shall use all previously obtained NCCEM data as representative data and shall include it in all averaging periods with respect to determining compliance with any of the required emission limitations.	On a continuous basis	EU01, EU02, EU03, EU04 & EU05	Env-A 1211.21 Federally Enforceable
19.	Periodic Monitoring	Annually, before April 1 st of each year, the Permittee shall perform efficiency testing using the test procedures specified in ASME/ANSI Boiler Test Code 4.1 and adjust the combustion process of the boiler in accordance with the procedures specified in chapter 5, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991.	Annually (before April 1 st of each year)	EU01	Env-A 1211.05(b) Federally Enforceable

Table 5 – Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
20.	Compliance Certification	<p>The Permittee shall perform compliance testing for NO_x, lb/MMBTU input, and lb/hr once every three years and no later than three years following the previous NO_x RACT testing performed by the Permittee. The NCCEM system can be used as an alternative to this requirement if the following conditions are met:</p> <ul style="list-style-type: none"> a) The NCCEM shall be re-certified every 3 years by performing a relative accuracy test audit on the unit and following all of the requirements of 40 CFR Part 60, Appendix B and Env-A 805 for re-certification; b) Measure NO_x emissions in units of the standard specified in Env-A 1211 for three 1-hour runs for each boiler operating on its own in order to verify compliance with the NO_x RACT emission standard. Such NO_x emission measurements shall be measured only from the certified CEM; and c) Performance testing shall be conducted in accordance with the requirements detailed in Table 6. 	Minimum of every three years	EU02, EU03, & EU04	Env-A 802, & Env-A 1211.21 Federally Enforceable

E. Performance Testing Requirements:

The Permittee shall conduct emissions testing on EU01, EU02, EU03 and EU04 according to the requirements identified in Table 6 below:

Table 6 – Performance Testing Requirements

Item #	Requirement	Regulatory Cite.
1.	<p>At such times as specified by the Division or EPA, the Permittee shall conduct USEPA method stack tests at maximum load conditions for any or all of the following pollutants:</p> <ul style="list-style-type: none"> a) Total Suspended Particulate Matter (TSP); b) Carbon monoxide (CO); c) Oxides of nitrogen (NO_x); and/or d) Other pollutants designated by DES or EPA. 	Env-A 802 & 40 CFR 70.6(a)(3) Federally Enforceable
2.	<p>The compliance tests shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR Part 60, 60.8, Appendix A, and Env-A 802. The following test methods or Division approved alternatives shall be used:</p> <ul style="list-style-type: none"> a) Performance tests for the emissions of total suspended particulate matter and opacity shall be conducted using EPA Methods 1-5 and 9; b) Performance tests for the emissions of CO shall be conducted using EPA Method 10; and c) Performance tests for the emissions of NO_x shall be conducted using EPA Method 7E. 	Env-A 802.04 Federally Enforceable

Table 6 – Performance Testing Requirements

Item #	Requirement	Regulatory Cite.
3.	At least 30 days prior to the commencement of testing, the Permittee shall submit to the Division a pretest report presenting the following information: a) Calibration sheets; b) Test methods to be used; c) Process data to be taken during the test, including steam flow, steam pressure, and steam temperature, along with the frequency of data collection; and d) Complete test program description the contents of which will be discussed with the Division.	Env-A 802.01 Federally Enforceable
4.	At least 15-days prior to commencement of testing, the Permittee and any contractor that may be retained for the testing shall participate in a pretest conference with a Division representative.	Env-A 802 Federally Enforceable
5.	Division representatives shall observe the emission testing. Upon commencement of any performance testing, the testing shall not be aborted without approval of the on-site DES and/or EPA representative.	Env-A 802.02 Federally Enforceable
6.	The Permittee shall provide sampling ports, platforms, and access in accordance with 40 CFR Part 60, 60.8(e).	Env-A 802.05 Federally Enforceable

F. Recordkeeping Requirements¹²:

The Permittee shall be subject to the recordkeeping requirements identified in Table 7 below:

Table 7 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Regulatory Cite.
1.	The Permittee shall retain records of all required monitoring and testing data, recordkeeping and reporting requirements, and support information for a period of at least 5 years from the date of origination.	Retain for a minimum of 5 years	Facility Wide	40 CFR 70.6(a)(3)(ii)(B) Federally Enforceable

¹² On April 23, 1999, DES promulgated new Env-A 900 regulations in an attempt to streamline the recordkeeping and reporting requirements sections of the New Hampshire Code of Administrative Rules. Until such time that the new Env-A 900 regulations are approved and adopted into the State Implementation Plan (SIP) by EPA, all Title V permits will be incorporating the old Env-A 900 regulations (which became effective on November 11, 1992), unless the new Env-A 900 regulations are more stringent. The recordkeeping and reporting requirements contained in this permit are those requirements, which the facility shall be required to comply with. These recordkeeping and reporting requirements shall fall under the Permit Shield provisions as contained in Section XIII of this permit.

Table 7 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Regulatory Cite.
2.	<p>The Permittee shall maintain records of monitoring/testing requirements as specified in Table 5, of this Permit including:</p> <ul style="list-style-type: none"> a) Preventative maintenance and inspection results for stacks, processes and boilers; b) Summary of maintenance and/or repair of the pollution control equipment (cyclones); c) Summary of maintenance and/or repair of the pitot tube associated with the stack volumetric flow measuring device; d) Summary of maintenance and/or repair of the CEM and COM systems; and e) Summary of maintenance, repair, and calibration records for all fuel flow meters. 	Maintain on a continuous basis	Facility Wide	40 CFR 70.6(a)(3)(iii)(A) Federally Enforceable
3.	The Permittee shall maintain records of all monitoring and calibration data generated by the NCCEM and COMS systems as specified in Table 5.	Maintain on a continuous basis	Facility Wide	40 CFR 70.6(a)(3)(iii)(A) Federally Enforceable
4.	<p>The Permittee shall maintain in a permanently bound logbook, the following:</p> <ul style="list-style-type: none"> a) The date(s) on which: <ul style="list-style-type: none"> 1) The efficiency test was conducted; and 2) The combustion process was last adjusted; b) The names(s), title and affiliation of the person(s) who: <ul style="list-style-type: none"> 1) Conducted the efficiency test; 2) Made the adjustments; c) The NO_x emission rate in parts per million (ppmv), corrected to 15% oxygen, after the adjustments are made; d) The CO emission rate, in ppmv, corrected to 15% oxygen, after the adjustments are made; and e) The opacity readings. 	Maintain on a continuous basis	EU01	Env-A 1211.05 Federally Enforceable
5.	<p>Delivery tickets from each fuel oil supplier for each shipment of fuel oil received shall be kept on file in a form suitable for inspection and shall be available to the DES and/or EPA upon request. Each delivery ticket shall indicate:</p> <ul style="list-style-type: none"> a) The name of the fuel supplier; b) The address of the fuel oil supplier; c) The telephone number of the fuel oil supplier; d) The quantity of fuel oil delivered; and e) The percent sulfur by weight of the fuel oil being delivered. <p>If delivery tickets do not contain sulfur content of fuel being delivered, the Permittee shall perform testing in accordance with appropriate ASTM test methods to determine compliance with the sulfur content limitation provisions for each delivery of fuel oil.</p>	Maintain on a continuous basis	Facility Wide	40 CFR 70.6(a)(3) & Env-A 1604.01 Federally Enforceable

Table 7 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Regulatory Cite.
6.	<p>Delivery tickets from each used oil supplier for each shipment of specification used oil received shall be kept on file in a form suitable for inspection and shall be available to the DES and/or EPA upon request. Each delivery ticket shall indicate:</p> <ol style="list-style-type: none"> The name of the supplier; The address of the supplier; The telephone number of the supplier; The quantity of specification waste oil delivered; The reason for rejection of any delivery of specification waste oil; The concentrations of each of the following contaminants in the specification used oil being delivered: <ol style="list-style-type: none"> Sulfur as weight percent; Lead in mg/L (ppm)*; Arsenic in mg/L (ppm)*; Cadmium in mg/L (ppm)*; Chromium in mg/L (ppm)*; Halogens as HCl in mg/L (ppm)*; PCBs in mg/L (ppm)*; and Flash point. <p>* - These concentrations shall be reported on a dry basis.</p> <p>If delivery tickets do not contain the information listed in f) above for the specification used oil being delivered, the Permittee shall perform testing in accordance with appropriate ASTM test methods to determine compliance with the hazardous constituent content limitation and sulfur content limitation provisions for each delivery of specification used oil prior to its addition to the fuel storage tank.</p> <p>The Permittee shall record the following information:</p> <ol style="list-style-type: none"> The amount of virgin #6 fuel oil and/or specification used oil blend contained in the storage tank at the time of specification used oil delivery; The amount of specification used oil added to the fuel oil storage tank; and The calculated contaminant concentration of the blended fuel oil in the storage tank after delivery. 	Maintain on a continuous basis	Facility Wide	Env-A 1604.01 & Env-Wm 807.02 State-Only Enforceable

Table 7 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Regulatory Cite.
7.	<p>The Permittee shall record daily fuel usage information for each boiler in a bound logbook, including:</p> <ul style="list-style-type: none"> a) The quantity of fuel used on a 24-hour basis; b) The fuel type; and c) The measured MMBTU/ton or gallon of fuel; and d) The sulfur content as percent sulfur by weight of fuel if applicable. <p>If more than one type of fuel is used, data on each fuel type shall be recorded separately.</p>	Maintain on a continuous basis	EU01, EU02, EU03 & EU04	ENV-A 901.03 Federally Enforceable
8.	<p>Monthly records of fuel utilization, hours of operation, and twelve consecutive month rolling totals of fuel utilization and hours of operation for each emergency generator shall be kept at the facility and contain the following information:</p> <ul style="list-style-type: none"> a) Consumption; b) Fuel type; c) Sulfur content as percent sulfur by weight of fuel; d) BTU content per gallon or cubic feet of fuel; and e) Hours of operation of each emergency generator. 	Monthly & consecutive 12 month rolling total of fuel consumption, and monthly & consecutive 12 month rolling total hours of operation	EU05	Env-A 901.03 Federally Enforceable
9.	Annual records of actual emissions for each significant and insignificant activity for determination of emission based fees.	Maintain at facility at all times	Significant and insignificant activities	Env-A 901.04 Federally Enforceable

Table 7 – Applicable Recordkeeping Requirements

Item #	Applicable Recordkeeping Requirement	Records Retention Requirement	Applicable Emission Unit	Regulatory Cite.
10.	<p>NO_x Recordkeeping Requirements:</p> <p>For fuel burning devices, including boilers, and internal combustion engines, the following information shall be recorded and maintained:</p> <ul style="list-style-type: none"> a) Facility information, including: <ul style="list-style-type: none"> 1) Source name; 2) Source identification; 3) Physical address; and 4) Mailing address. b) A copy of the certificate of accuracy required to be maintained pursuant to Env-A 901.04. c) Identification of each fuel burning device; d) Operating schedule information for each fuel burning device identified in (b), above, including: <ul style="list-style-type: none"> 1) Days per calendar week during the normal operating schedule; 2) Hours per day during the normal operating schedule and for a typical ozone season day, if different from the normal operating schedule; and 3) Hours per year during the normal operating schedule; e) Type, and amount of fuel burned, for each fuel burning device, during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in MMBTU/hr and; f) The following NO_x emission data, including records of total annual emissions, in tons per year, and typical ozone season day emissions, in pounds per day; <ul style="list-style-type: none"> 1) Theoretical potential emissions for the calculation year for each fuel burning device; and 2) Actual NO_x emissions for each fuel-burning device. 	On a continuous basis	Facility Wide	Env-A 901.08 Federally Enforceable

G. Reporting Requirements¹²:

The Permittee shall be subject to the reporting requirements identified in Table 8 below:

Table 8 – Applicable Reporting Requirements				
Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
1.	The Permittee shall submit a summary report of monitoring data as specified in Table 7 of this permit including: <ul style="list-style-type: none"> a) Preventative maintenance and inspection results performed during the annual inspection as specified in Table 5, Item #1 for stacks and emission units; b) Summary of testing and/or delivery ticket certifications for fuel sulfur content limitation provisions; c) Summary of testing and/or delivery ticket certifications for specification waste oil sulfur content and contaminant content limitation provisions; and d) Summary of maintenance and repair records for the pollution control equipment (cyclones); e) Summary of maintenance and repair records for the stack volumetric flow measuring device; f) Summary of maintenance and repair records for the CEM and COM systems; g) Summary of maintenance, repair, and calibration records for all fuel flow meters; and h) A Permit deviation report. 	Every 6 months (no later than the 30th day of the following month of each calendar half year)	Facility Wide	40 CFR 70.6(a)(3)(iii) (A) Federally Enforceable
2.	The Permittee shall submit a summary report of boiler efficiency testing and the adjustments to the combustion processes as specified in Table 7 Item 4 of this permit	Annually (no later than April 15 th of the following year)	EU01	40 CFR 70.6(a)(3)(iii) (A) Federally Enforceable
3.	The Permittee shall submit an annual fuel usage report indicating consecutive 24-hour period and consecutive 12 month rolling totals of fuel utilization for the four boilers and corresponding fuel information as outlined in Condition VIII.E., Table 7, Item 7.	Annually (no later than April 15 th of the following year)	EU01, EU02, EU03 & EU04	Env-A 901.09 Federally Enforceable
4.	The Permittee shall submit an annual fuel usage report indicating consecutive 24-hour period and consecutive 12 month rolling totals of fuel utilization for the emergency generator and corresponding fuel information as outlined in Condition VIII. E, Table 7, Item 8.	Annually (no later than April 15 th of the following year)	EU05	Env-A 901.09 Federally Enforceable
5.	NO_x Reporting Requirements: For fuel burning devices, including boilers, and engines, as well as miscellaneous sources, the owner or operator shall submit to the Director, annually (no later than April 15 th of the following year), reports of the data required by Condition VIII.E, Table 7, Item 10 including total annual quantities of all NO _x emissions.	Annually (no later than April 15 th of the following year)	Facility Wide	Env-A 901.09 Federally Enforceable

Table 8 – Applicable Reporting Requirements

Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
6.	Within 30-days after completion of performance testing, the Permittee shall submit a test report to the Division.	No later than 30 days after completion of a test	EU01, EU02, EU03, & EU04	Env-A 1211.21(c) Federally Enforceable
7.	The Permittee shall submit a written quarterly report which contains the following information: a) Calendar daily averages of CO and NO _x lbs/Hr whether or not excess emissions have occurred; b) Calendar daily averages of percentage diluent (O ₂ or CO ₂); and c) Calendar daily averages of stack flow.	Quarterly (no later than 30 days of the last date of the reporting period)	Facility Wide	Env-A 805.08 & 40 CFR 51 Federally Enforceable
8.	Excess emissions indicated by the CEM system shall be considered a violation of the applicable emission limit for the purposes of this Permit. The Permittee shall also include the following information in the quarterly report: a) Magnitude of each excess emission; b) Date and time of commencement and completion of each time period of excess emission; c) Date and time(s) of each period where the CEM was not operational, and the total percentage of time where the CEM was not operational; d) When no excess emissions have occurred or the CEM system has not been inoperative, repaired, or adjusted, such information shall be stated in the report; and For gaseous measuring CEM systems, daily averages of the measurements made and emission rates calculated shall be reported whether or not excess emissions have occurred.	Quarterly (no later than 30 days of the last date of the reporting period)	Facility Wide	Env-A 805.08 & 40 CFR 51 Federally Enforceable
9.	Prompt reporting of deviations from Permit requirements shall be conducted in accordance with Section XXVIII of this Permit.	Prompt reporting (within 24 hours of an occurrence)	Facility Wide	40 CFR 70.6(a)(3)(iii) (B) Federally Enforceable
10.	Any report submitted to the DES and/or EPA shall include the certification of accuracy statement outlined in Section XXI.B. of this Permit and shall be signed by the responsible official.	As specified in section XXI. B.	Facility Wide	40 CFR 70.6(c)(1) Federally Enforceable
11.	Annual reporting and payment of emission based fees for pollutants, including but not limited to SO ₂ , NO _x , CO, TSP, VOCs and New Hampshire Regulated Air Toxic Pollutant (NHRATP) emissions, shall be conducted in accordance with Section XXIII of this Permit.	Annually (no later than April 15 th of the following year)	Facility Wide	Env-A 704.03 Federally Enforceable
12.	Annual compliance certification shall be submitted in accordance with Section XXI of this Permit.	Annually (no later than April 15 th of the following year)	Facility Wide	40 CFR 70.6(c)(1) Federally Enforceable

IX. Requirements Currently Not Applicable:

Requirements not currently applicable to the facility were not identified by the Permittee.

General Title V Operating Permit Conditions**X. Issuance of a Title V Operating Permit:**

This Permit is issued in accordance with the Provisions of Part Env-A 609. In accordance with 40 CFR 70.6(a)(2) this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.

Permit expiration terminates the Permittees' right to operate the Permittees' emissions units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

Pursuant to Env-A 609.02(b), this Permit shall be a state permit to operate as defined in RSA 125-C:11, III.

XI. Title V Operating Permit Renewal Procedures:

Pursuant to Env-A 609.06(b), an application for renewal of this Permit shall be considered timely if it is submitted to the Director at least six months prior to the designated expiration date of this Permit.

XII. Application Shield:

Pursuant to Env-A 609.07, if an applicant submits a timely and complete application for the issuance or renewal of a Permit, the failure to have a Permit shall not be considered a violation of this part until the Director takes final action on the application.

XIII. Permit Shield:

Pursuant to Env-A 609.08(a), a permit shield shall provide that:

1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and
2. For any potential applicable requirement or any potential state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically identified in this Title V Operating Permit Section IX Table 8 as not applicable to the stationary source or area source, the Permittee need not comply with the specifically identified federal or state requirements.

The permit shield identified in Section XIII. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.08(b). It shall not apply to certain conditions as specified in Env-A 609.08(c) that may be incorporated into this Permit following permit issuance by DES.

If a Title V Operating Permit and amendments there to issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the NH Rules Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.

If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V Operating Permit, which are affected, directly or indirectly, by the inaccurate or incomplete information.

Pursuant to Env-A 609.08(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.18 or to exercise its summary abatement authority.

Pursuant to Env-A 609.08(g), nothing contained in this section or in any Title V Operating Permit issued by the DES shall alter or affect the following:

1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;
2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15, II;
3. The provisions of section 303 of the Act regarding emergency orders including the authority of the EPA Administrator under that section;
4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
5. The applicable requirements of the acid rain program, consistent with section 408(a) of the Act;
6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the Act; or
7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

XIV. Reopening for Cause

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.18(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.18(b) through (g).

XV. Administrative Permit Amendments

Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Part Env-A 100 immediately upon submittal of the request.

Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

XVI. Operational Flexibility

Pursuant to Env-A 612.02(a), the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions under this existing Title V Operating Permit at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all the conditions are met as specified in section XVI. A. 1. through 7. of this permit and a notice is submitted to the DES and EPA

describing the intended changes. At this point, DES has not included any permit terms authorizing emissions trading in this permit.

1. The change is not a modification under any provision of title I of the Act;
2. The change does not cause emissions to exceed the emissions allowable under the Title V Operating Permit, whether expressed therein as a rate of emissions or in terms of total emissions;
3. The owner or operator has obtained any temporary permit required by Env-A 600;
4. The owner or operator has provided written notification to the director and administrator at least 15 days prior to the proposed change and such written notification includes:
 - a.) The date on which each proposed change will occur;
 - b.) A description of each such change;
 - c.) Any change in emissions that will result and how this change in emissions will comply with the terms and conditions of the permit;
 - d.) A written request that the operational flexibility procedures be used; and
 - e.) The signature of the responsible official, consistent with Env-A 605.04(b);
5. The Title V Operating Permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;
6. The owner or operator has included in the application for the Title V Operating Permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the Title V Operating Permit which qualify under a federally- enforceable emissions cap that is established in the Title V Operating Permit independent of the otherwise applicable requirements; and
7. The proposed change complies with Env-A 612.02 (e).

Pursuant to Env-A 612.02(c), the Permittee subject to and operating under this Title V Operating Permit may make changes not addressed or prohibited by this existing Title V Operating Permit at the permitted stationary source or area source without filing a Title V Operating Permit application, provided that all the conditions specified in Env-A 612.02(c)(1) through (6) are met and a notice is submitted to the DES and EPA describing the intended changes.

Pursuant to Env-A 612.02(d), the Permittee, Operator, Director and Administrator shall attach each notice of an off-permit change completed in accordance with Section XVI of this Title V Operating Permit to their copy of the current Title V Operating Permit.

Pursuant to Env-A 612.02(e), any change under Section XVI shall not exceed any emissions limitations established under the NH Rules Governing the Control of Air Pollution, or result in an increase in emissions, or result in new emissions, of any toxic air pollutant or hazardous air pollutant other than those listed in the existing Permit.

Pursuant to Env-A 612.02(f), the off-permit change shall not qualify for the permit shield under Env-A 609.08.

XVII. Minor Permit Amendments

Pursuant to Env-A 612.04 prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.04(b).

The Director shall take final action on the minor permit amendment request in accordance with the provisions of Env-A 612.04(c) through (g).

Pursuant to Env-A 612.04(g), the permit shield specified in Env-A 609.08 shall not apply to minor permit amendments under Section XVII. of this Permit.

Pursuant to Env-A 612.04(I), the Permittee shall be subject to the provisions of Part Env-A 614 and Part Env-A 615 if the change is made prior to the filing with the Director a request for a minor permit amendment.

XVIII. Significant Permit Amendments

Pursuant to Env-A 612.05, a change at the facility shall qualify as a significant permit amendment if it meets the criteria specified in Env-A 612.05(a)(1) through (7).

Prior to implementing the significant permit amendment, the Permittee shall submit a written request to the Director, which includes all the information as referenced in Env-A 612.05(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of Env-A 614 and Env-A 615 if a request for a significant permit amendment is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.

The Director shall take final action on the significant permit amendment in accordance with the Procedures specified in Env-A 612.05(d), (e) and (f).

XIX. Title V Operating Permit Suspension, Revocation or Nullification

Pursuant to RSA 125-C:13, the Director may suspend or revoke any final permit issued hereunder if, following a hearing, the Director determines that:

1. The Permittee has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, order or permit condition in force and applicable to it; or
2. That the emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.

The Director shall nullify any Permit, if following a hearing in accordance with RSA 541-A:30, II, a finding is made that the Permit was issued in whole or in part based upon any information proven to be intentionally false or misleading.

XX. Inspection and Entry

Pursuant to Env-A 614.01, EPA and DES personnel shall be granted access to the facility covered by this Permit, in accordance with RSA 125-C:6,VII for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement or state requirement found in the NH Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

XXI. Certifications**A. Compliance Certification Report**

In accordance with 40 CFR 70.6(c) the Responsible Official shall certify, for the previous calendar year, that the facility is in compliance with the requirements of this permit. The report shall be submitted annually, no later than April 15th of the following year. The report shall be submitted to the DES and to the U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(c)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;
2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether the method was continuous or intermittent during the reporting period;
3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
4. Any additional information required by the DES to determine the compliance status of the source.

B. Certification of Accuracy Statement

All documents submitted to the DES shall contain a certification of accuracy statement by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

All reports submitted to DES (except those submitted as emission based fees as outlined in Section XXIII of this Permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Compliance Bureau

All reports submitted to EPA shall be submitted to the following address:

Office of Environmental Stewardship
Director Air Compliance Program
United States Environmental Protection Agency
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Air Compliance Clerk

XXII. Enforcement

Any noncompliance with a permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. Section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii) a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

XXIII. Emission-Based Fee Requirements

The Permittee shall pay an emission-based fee annually for this facility as calculated each calendar year pursuant to Env-A 704.03.

The Permittee shall determine the total actual annual emissions from the facility to be included in the emission-based multiplier specified in Env-A 704.03(a) for each calendar year in accordance with the methods specified in Env-A 620.

The Permittee shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 704.03 and the following equation:

$$FEE = E * DPT * CPI_m * ISF$$

Where:

- FEE = The annual emission-based fee for each calendar year as specified in Env-A 704.
- E = The emission-based multiplier is based on the calculation of total annual emissions as specified in Env-A 704.02 and the provisions specified in Env-A 704.03(a).
- DPT = The dollar per ton fee the DES has specified in Env-A 704.03(b).
- CPI_m = The Consumer Price Index Multiplier as calculated in Env-A 704.03(c).
- ISF = The Inventory Stabilization Factor as specified in Env-A 704.03(d).

The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor and for the value of the Consumer Price Index Multiplier.

The Permittee shall submit, to the DES, payment of the emission-based fee and a summary of the calculations referenced in paragraphs 2 and 3 in Section XXIII. of this Permit for each calendar year by October 15th of the following calendar year in accordance with Env-A 704.04. The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN.: Emissions Inventory

The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 704.05.

XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Part Env-A 103 at the time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Part Env-A 103.

XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6(g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹³ emission limitations specified in this Permit as a result of an emergency¹⁴. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
2. The permitted facility was at the time being properly operated;

¹³ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

¹⁴ An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

3. During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
4. The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

XXVIII. Permit Deviation:

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone or fax, within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.